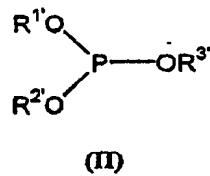
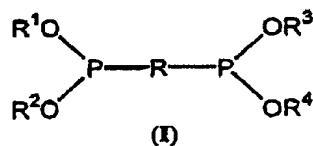


WHAT IS CLAIMED IS:

1. An adhesive silicone elastomer composition which can be crosslinked under hot conditions by polyaddition (hydrosilylation), this composition being of the type of those comprising:

- ◆ α/ at least one PolyOrganosiloxane (POS) carrying ethylenic and/or acetylenic unsaturation(s) {POS comprising $\equiv\text{Si}-$ [unsaturation] units};
- ◆ β/ at least one polyorganosiloxane (POS) carrying $\equiv\text{Si}-\text{H}$ units;
- ◆ γ/ a catalytic combination comprising:
 - ~ γ.1 at least one metal catalyst (preferably based on platinum)
 - ~ γ.2 and at least one crosslinking inhibitor;
- ◆ δ/ a filler;
- ◆ ε/ at least one adhesion promoter;
- ◆ ρ/ at least one POS resin;
- ◆ λ/ at least one agent for stability toward heat;
- ◆ φ/ optionally at least one other functional additive;

characterized in that it is a single-component composition and in that the crosslinking inhibitor γ.2 is selected from the group of compounds of following formula (I) or (II):



in which:

R , R^1 , R^2 , R^3 , R^4 , $\text{R}^{1'}$, $\text{R}^{2'}$ and $\text{R}^{3'}$, which are identical

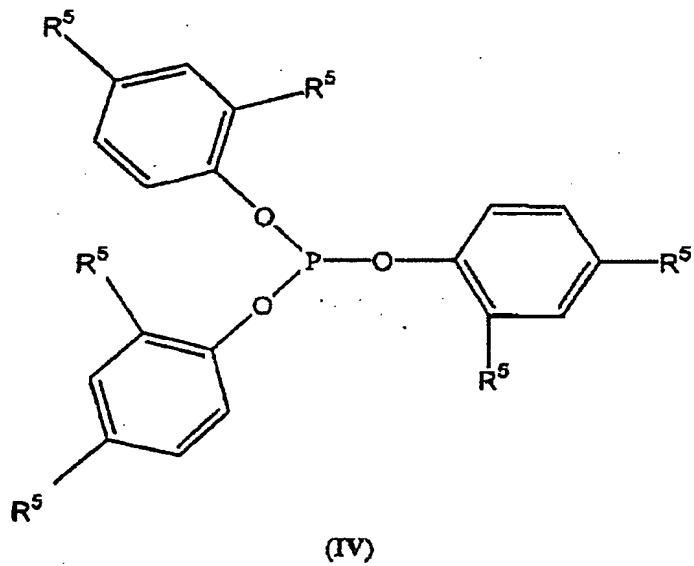
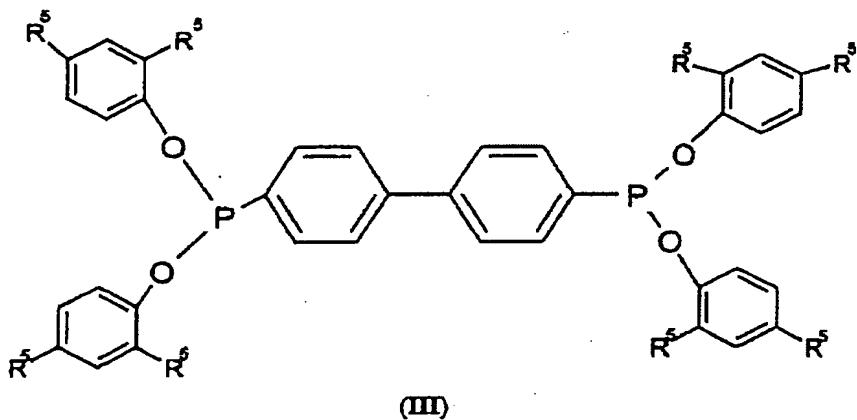
or different, represent a linear, branched or cyclic alkyl radical or a substituted or unsubstituted aryl radical, in particular:

- 5 i. a linear or branched alkyl radical having in particular from 2 to 30 carbon atoms (C), preferably from 2 to 12 C,
- 10 ii. an alkyl radical comprising one or more rings, in particular 1 or 2, it being possible for a ring to have in particular from 4 to 14 C, preferably from 5 to 8 C, or
- 15 iii. an aryl or alkylaryl radical comprising one or more fused or nonfused aromatic rings, in particular 1 or 2 rings, it being possible for a ring to comprise from 4 to 14 C, preferably from 6 to 8 C, optionally substituted by 1 or more, in particular from 1 to 2, linear or branched alkyl(s) having in particular from 1 to 12 C, preferably from 4 to 12 C.

20 2. The composition as claimed in claim 1, characterized in that the R radical of the formula (I) of the inhibitor $\gamma.2$ is a cyclic alkyl or an aryl radical, preferably the biphenyl radical.

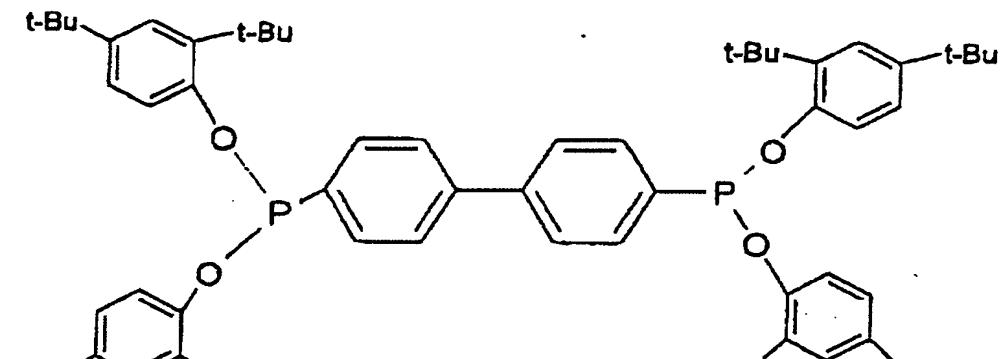
25 3. The composition as claimed in claim 1, characterized in that the R^1 , R^2 , R^3 , R^4 , $R^{1'}$, $R^{2'}$ and $R^{3'}$ radicals of the formulae (I) and (II) of the inhibitor $\gamma.2$ are cyclic alkyls, aryls or alkylaryls, preferably substituted phenyls.

30 4. The composition as claimed in claim 1, characterized in that the inhibitor $\gamma.2$ corresponds to either of the following formulae (III) and (IV):

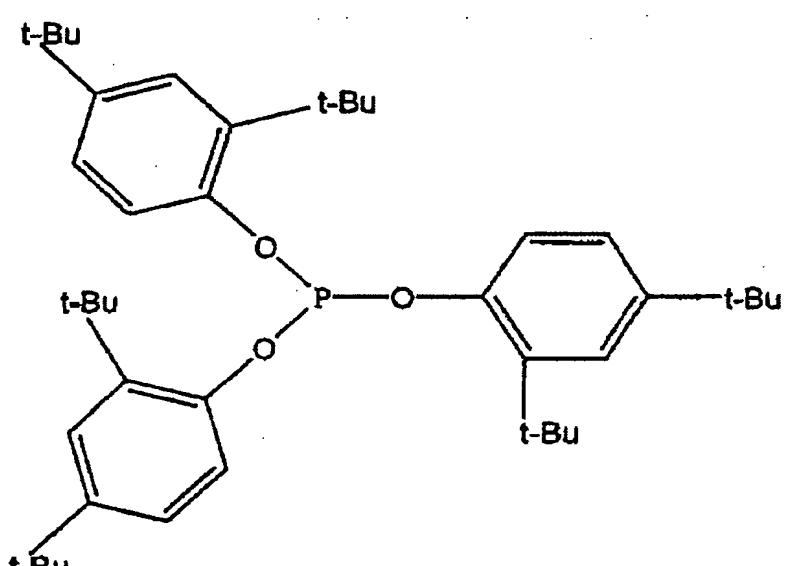


in which the R⁵ radicals, which are identical or
5 different, preferably identical, are linear or branched
alkyls having in particular from 1 to 12 C, preferably
from 4 to 12 C.

5. The composition as claimed in claim 1,
10 characterized in that the inhibitor γ.2 corresponds to
the formula (V) or (VI):



(V)



(VI)

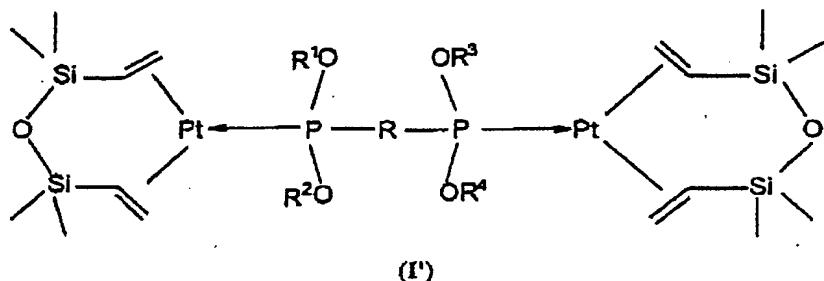
6. The composition as claimed in any one of claims 1
5 to 5, characterized in that the catalyst $\gamma.1$ is a
platinum catalyst.

7. The composition as claimed in any one of claims 1
to 6, characterized in that the phosphorus of
10 $\gamma.2$ /platinum of $\gamma.1$ ratio by weight is such that:
■ $P/Pt \geq 1$,
■ preferably, $5 \geq P/Pt \geq 1$,
■ and, more preferably still, $4 \geq P/Pt \geq 1$.

15 8. The catalytic composition as claimed in claim 6,
characterized in that the catalyst $\gamma.1$ is a platinum/

unsaturated siloxane complex, preferably a platinum/vinylsiloxane complex and more preferably still a Karstedt complex.

5 9. The composition as claimed in claim 8, characterized in that the catalytic combination γ comprises the following chemical entity (I'):



10

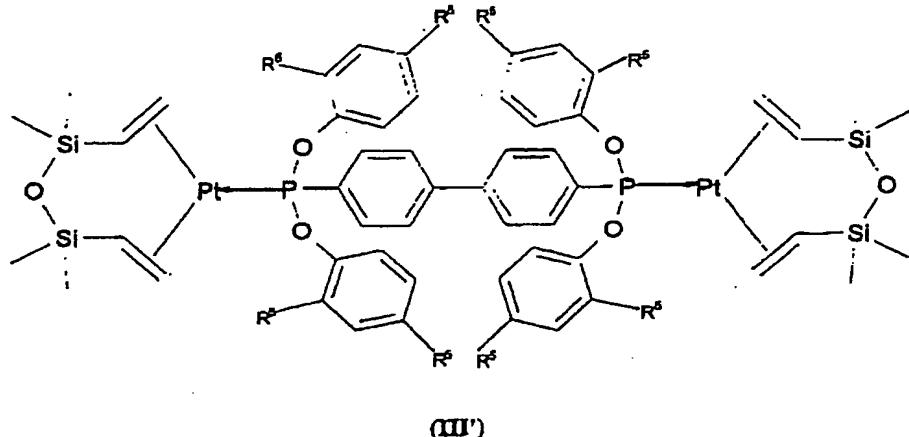
in which:

R, R¹, R², R³ and R⁴, which are identical or different, represent a linear, branched or cyclic alkyl radical or a substituted or unsubstituted aryl radical, in particular:

- i. a linear or branched alkyl radical having in particular from 2 to 30 carbon atoms (C), preferably from 2 to 12 C,
- ii. an alkyl radical comprising one or more rings, in particular 1 or 2, it being possible for a ring to have in particular from 4 to 14 C, preferably from 5 to 8 C, or
- iii. an aryl or alkylaryl radical comprising one or more fused or nonfused aromatic rings, in particular 1 or 2 rings, it being possible for a ring to comprise from 4 to 14 C, preferably from 6 to 8 C, optionally substituted by 1 or more, in particular from 1 to 2, linear or branched alkyl(s) having in particular from 1 to 12 C, preferably from 4 to 12 C.

10. The composition as claimed in claim 9,

characterized in that the catalytic combination γ comprises the following chemical entity (III'):

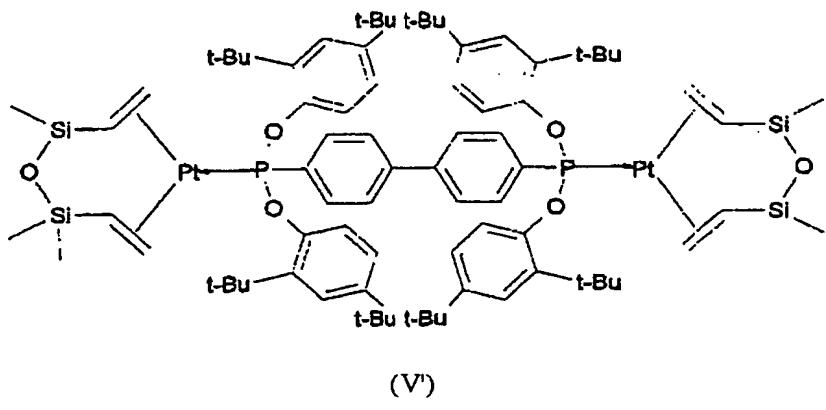


5

in which the R^5 radicals, which are identical or different, preferably identical, are linear or branched alkyls having in particular from 1 to 12 C, preferably from 4 to 12 C.

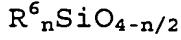
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11. The composition as claimed in claim 10, characterized in that the catalytic combination γ comprises the following chemical entity (V'):

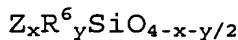


15 12. The composition as claimed in claim 1, characterized in that:

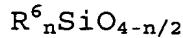
- ♦ the α POS or POSS comprise siloxyl units



and siloxyl units of formula:

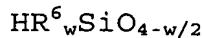


5 ♦ the β POS or POSS comprise siloxyl units



and siloxyl units of formula:

10



in which formulae the various symbols have the following meaning:

15 \Rightarrow the R^6 symbols, which are identical or different, each represent a nonhydrolyzable group of hydrocarbon nature, it being possible for this radical to be:

20 * an alkyl radical having from 1 to 5 carbon atoms which can comprise from 1 to 6 chlorine atoms,

* cycloalkyl radicals having from 3 to 8 carbon atoms which can comprise from 1 to 4 chlorine atoms,

25 * aryl or alkylaryl radicals having from 6 to 8 carbon atoms which can comprise from 1 to 4 chlorine atoms,

30 * cyanoalkyl radicals having from 3 to 4 carbon atoms; methyl, ethyl, propyl, isopropyl, butyl, isobutyl, n-pentyl, t-butyl, chloromethyl, dichloromethyl, α -chloroethyl, α, β -dichloroethyl, β -cyanoethyl, γ -cyano-propyl, phenyl, p-chlorophenyl, m-chlorophenyl, 3,5-dichlorophenyl, trichlorophenyl, tetrachlorophenyl, o-, p- or m-tolyl, and xylyl, such as 2,3-dimethylphenyl or 3,4-dimethylphenyl, groups being preferred; methyl and phenyl radicals being particularly preferred;

35

- ⇒ the Z symbols represent a C₂-C₆ alkenyl group (preferably a vinyl group);
- ⇒ n = an integer equal to 0, 1, 2 or 3;
- ⇒ x = an integer equal to 0, 1, 2 or 3;
- 5 ⇒ y = an integer equal to 0, 1 or 2;
- ⇒ the sum x + y lies within the range from 1 to 3,
- ⇒ w = an integer equal to 0, 1, 2 or 3.

13. The composition as claimed in claim 12,
10 characterized in that it comprises:

- α/ - at least one POS exhibiting, per molecule, at least two C₂-C₆ alkenyl groups bonded to silicon;
- β/ - at least one POS exhibiting, per molecule, at least two hydrogen atoms bonded to silicon;
- 15 - γ/ - a catalytic combination as defined in claims 2 to 12;
- ε/ an adhesion promoter, preferably a binary adhesion promoter and more preferably still an adhesion promoter consisting of:
 - ▲ ε.1 ▲ at least one alkoxylated organosilane comprising, per molecule, at least one C₂-C₆ alkenyl group,
 - ▲ ε.2 ▲ at least one organosilicon compound comprising at least one epoxy radical;
- 20 - δ/ an inorganic and/or microsphere and/or hollow and/or expanded and/or expandable inorganic filler;
- ρ/ optionally at least one POS resin carrying T and/or Q, optionally M and/or D, siloxyl units and alkenyl-comprising siloxyl units, preferably vinyl-comprising siloxyl units of M^{Vi} and/or D^{Vi} type, resins of MM^{Vi}DD^{Vi}Q type being very particularly preferred;
- 25 - λ/ optionally at least one colorant;
- 30 - φ/ optionally at least one other functional additive.

14. The composition as claimed in claim 12 or 13, characterized in that it is an RTV composition and in

that its POS α and/or ρ constituent(s) is(are) chosen from alkenylsilyl POSS having a viscosity η at 25°C such that:

$$200 \leq \eta \leq 200\,000 \text{ mPa}\cdot\text{s}$$

5 preferably, $500 \leq \eta \leq 100\,000 \text{ mPa}\cdot\text{s}$

15. A process for the preparation of the composition as claimed in any one of claims 1 to 14, characterized:

➤ in that the catalytic combination γ is obtained:

10 • either by mixing the inhibitor $\gamma.2$ with a solution/dispersion of catalyst $\gamma.1$, preferably in an optionally vinyl-comprising polysiloxane oil,

15 • or by mixing the catalyst $\gamma.1$ in a dispersion of the inhibitor $\gamma.2$ in a silicone oil, preferably a vinyl-comprising silicone oil, with a viscosity of less than or equal to 100 000 mPa·s at 25°C;

20 ➤ and in that:

a) first of all a portion of the constituents, with the exception of the catalytic combination γ , is mixed;

b) heating is carried out, preferably under vacuum;

25 c) cooling is carried out;

d) and then the remainder of the constituents, except for the catalytic combination γ , is added with stirring to the premix thus obtained and, finally, the catalytic combination γ is added.

30 16. The application, as adhesive, of the composition as claimed in any one of claims 1 to 14 or obtained by the process as claimed in claim 15.

35 17. An adhesive, in particular characterized in that it comprises the composition as claimed in any one of claims 1 to 14 or obtained by the process as claimed in claim 15.